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EXAMINER	
TOLIN, MICHAEL A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,963	KLOSE, GERD-RUDIGER	
	Examiner	Art Unit	
	MICHAEL TOLIN	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-12,17-19,22-24,37,38,40-44 and 47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12,17-19,22-24,37,38,40-44 and 47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6, 8-12, 17-19, 22-24, 37, 38, 40-44 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the new language "being made" and "being deposited" does not use the clearly positive terminology of "making" and "depositing", respectively. Thus, it is unclear if these are positively recited limitations of the claim. A proposed claim is provided below which resolves these issues. This proposed claim is not considered allowable over the prior art of record for the reasons provided below, but it does resolve the issues under 35 USC 112, second paragraph.

Further regarding claim 1, --at least-- should be inserted before "two webs" in line 13 to use consistent language and provide clear antecedent basis. A similar correction is required in claim 17. This correction was made in the claim proposed below.

Independent claims 40 and 42 have similar problems to those noted above with respect to claim 1.

Regarding claim 2, it is now unclear if mineral fibers parallel to the large surfaces are positively required. The examiner suggests more clearly indicating that such fibers are present and that they are removed.

48. (new, proposed by examiner, **DO NOT ENTER**) A method for the production of a web of insulating material made of mineral fibers comprising:

making mineral fibers from a melt,

depositing the mineral fibers onto a first conveyor as a primary nonwoven material,

dangling the primary nonwoven material at right angles in relation to the longitudinal extension thereof,

depositing the primary nonwoven material as a secondary nonwoven material onto a second conveyor,

displacing the secondary nonwoven material such that the mineral fibers extend generally in a vertical plane in relation to the large surfaces of the secondary nonwoven material and subsequently dividing the displaced secondary nonwoven material into at least two webs of insulating material by making a separating cut parallel to the large surfaces of the secondary nonwoven material, wherein said webs of insulating material comprise a large surface and a separating surface which has substantially the same area as the large surface and which is arranged opposite said large surface,

applying a lamination to at least one of the separating surfaces of said at least two webs of insulating material.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3-6, 8-12, 19, 22-24, 37, 38, 40-44 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noergaard (US 5981024).

Noergaard teaches a method for the production of a web of insulating material made of mineral fibers wherein the mineral fibers are made from a melt and deposited onto a conveyor as a primary nonwoven, the primary nonwoven is dangled at right angles in relation to the longitudinal extension thereof and is deposited as a secondary

nonwoven onto a second conveyor, the secondary nonwoven material is displaced in the claimed manner, and the secondary nonwoven material is divided in the claimed manner into two webs of insulating material. See Figures 1 and 7. Figure 7 of Noergaard shows that laminations are applied to the large surfaces rather than to at least one of the separating surfaces, as claimed. However, it is clear from Noergaard that insulating products may be provided with laminations on either or both sides of the insulating material (column 19, lines 15-21). Thus one of ordinary skill in the art reading Noergaard would have been motivated to apply foil materials which satisfy the claimed lamination to either or both sides of the insulating materials shown in Figure 7, according to the desired properties of the final product. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide this limitation because one of ordinary skill in the art would have been motivated to provide such foils on either or both sides of the insulating material in accordance with the teachings of Noergaard for the reasons provided above.

The limitations of claims 3-5 are clearly taught by Noergaard.

Regarding claim 6, Noergaard clearly teaches multilayer foils (column 12, lines 58-64).

The limitations of claim 8, 12 and 44 are well known in the art for the motivation of suitably connecting a foil of the type suggested by Noergaard to the insulating material.

Regarding claim 9, the foil materials suggested by Noergaard clearly provide external reinforcement and/or protection. Alternatively, providing such foils with a

decorative layer is conventional in the art to provide manufacturer identification or a desired aesthetic effect.

Regarding claim 10, Noergaard clearly suggests drawing the lamination off a roll and feeding it together with the web of insulating material to a processing station for connection.

Regarding claim 11, as noted above Noergaard suggests providing a multilayer lamination. Drawing several of the layers of the lamination off a roll requires no more than drawing a multilayer lamination off a roll. Such multilayer laminations are conventionally provided on a roll, and as noted above, Noergaard suggests drawing the lamination off of a roll and feeding it to a connecting station.

Regarding claim 19, removing and exhausting mineral fiber dust during a cutting operation of a mineral fiber batt, for example with a combined saw and exhaust unit, is well known in the art to prevent such fiber dust from entering the atmosphere and becoming a hazard to workers. Such well known removal and exhaustion during the cutting operation would necessarily occur prior to application of the laminations, because such laminations cannot be applied to the separating surfaces before the separating surfaces are formed by a cutting operation. It would have been obvious to one of ordinary skill in the art to provide the limitation of claim 19 because one of ordinary skill in the art would have been motivated to prevent fiber dust from entering the atmosphere and becoming a hazard to workers in accordance with methods well known in the art.

Claim 22 is satisfied for the reasons cited above.

The limitation of claim 23 is well known in the art for providing a flange which may have an adhesive provided thereon in order to allow easy connection of the lamination to an adjacent structure or portion of insulating material. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide this limitation for the above noted motivation.

The limitation of claim 24 is well known in the art for providing users of the insulating product with markings which allow the insulating product to be easily cut to standard widths. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide this limitation for the above noted motivation.

The limitations of claims 37, 38 and 40-44 are satisfied for the reasons provided above.

Regarding claim 47, Noergaard clearly suggests laminations having different layers, such as nonwoven materials in combination with other materials or metal foil in combination with a fibrous layer or plastic foil (column 12, lines 58-64).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noergaard as applied to claims 1, 3-6, 8-12, 19, 22-24, 37, 38, 40-44 and 47 above, and further in view of Klose (US 4917750).

Regarding claim 2, it is generally known in the art to remove the fibers which are substantially parallel to the large surface of an insulating material of the type taught by Noergaard. For example, Klose suggests removing such fibers in order to provide an insulating material of extremely high compressive strength (column 12, lines 42-57;

Figure 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the limitation of claim 2 because one of ordinary skill in the art would have been motivated to achieve extremely high compressive strength in accordance with the teachings of Klose.

6. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noergaard as applied to claims 1, 3-6, 8-12, 19, 22-24, 37, 38, 40-44 and 47 above, and further in view of Metcalfe (US 4128678).

Regarding claim 17, it is generally known in the art to direct multiple webs of insulating material into a furnace in order to cure multiple webs in a single heating process. As to curing after application of the laminations, Metcalfe teaches that such curing may be suitably provided either before or after application of the lamination as a matter of routine design choice (column 6, lines 52-62). It would have been obvious to one of ordinary skill in the art of time the invention to provide the limitation of claim 17 because one of ordinary skill in the art would have been motivated to perform curing of multiple webs in a single heating process and suitably attach the lamination in accordance with known methods for the reasons provided above.

Response to Arguments

7. Applicant's arguments filed 20 April 2011 have been fully considered but they are not persuasive.

Applicant argues Noergaard shows application of foils in an embodiment which is different than that illustrated in Figure 7. Applicant notes that the embodiment in which foils are applied does not involve a separating cut and application of a foil to a separating surface as claimed. Applicant concludes that one skilled in the art does not get a hint of applying a foil to a separating surface from Noergaard. The examiner acknowledges that the embodiment show in Figures 5 and 8-10 does not involve formation of a separating surface by cutting and application of a foil to a separating surface, as claimed. While there is a clear teaching of providing foils on either or both surfaces in the embodiment shown in Figures 5 and 8-10 (column 19, lines 15-21), there is no explicit teaching of providing foils both sides of the insulating sheets formed as shown in Figure 7. Figure 7 was relied upon by the examiner for teaching the claimed step of cutting to provide separating surfaces. Thus, the rejection under 35 USC 102 has been withdrawn. However, the examiner does not agree that Noergaard fails to motivate the person of ordinary skill in the art to provide foils on either or both sides in the embodiment shown in Figure 7. Noergaard explains with respect to the embodiment shown in Figures 5 and 8-10 that it is to be realized that mineral fiber webs or foils may be provided on either or both sides of the core layer. (column 19, lines 15-21). Noergaard teaches that such foils may constitute water or air impermeable sealings or IR reflecting materials (column 22, lines 15-20). Noergaard teaches the foils can comprise a plastic foil, woven or nonwoven mesh, paper, cloth, a metal sheet or foil, or a metal mesh (column 8, lines 8-13). Thus it is clear from Noergaard that application of such foils to one or both sides of an insulating product is known for the purpose of

providing a product with the desired properties. For these reasons, the examiner maintains that these teachings in Noergaard would have motivated the person of ordinary skill in the art to apply such foils to either or both sides of the insulating webs formed in Figure 7 of Noergaard.

Applicant argues it is unnecessary to provide laminations on the separating surfaces in Figure 7 of Noergaard becaue the fibers are already perpendicular to the large surfaces, thus providing compressive strength. In response, the examiner has not relied upon an increase in compressive strength as motivation to provide the foils. As noted above, the examiner has relied upon the teachings in Noergaard to provide such foils on either or both sides of an insulation web to provide desired properties in the final product. As noted above, Noergaard suggests providing foils which act as sealing layers or infrared reflectors. Applicant has not provided any evidence to support the assertion that one skilled in the art would not have wanted to provide the embodiment shown in Figure 7 of Noergaard with such functional layers.

With regard to stability and processability, such language is not found in the claims. Accordingly, this argument is not commensurate in scope with the claims.

Applicant argues Noergaard applies the foils prior to curing in a curing oven. However, such is not excluded by most of the claims. With respect to claims 12 and 44, this limitation has been taken as well known in the art for the motivation of suitably connecting a foil of the type suggested by Noergaard to the insulating material. Applicant has not challenged this assertion of what is well known in the art.

Applicant argues the lamination is not applied to the large surfaces, but only to the separating surfaces. However, the claims do not exclude application of the laminations to both surfaces. The various advantages noted by Applicant are not commensurate in scope with the claims, because as noted above, the claims do not exclude providing laminations on both sides of the insulating web materials.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The new grounds of rejection applied above were necessitated by the changes to the claims made in the most recent amendment.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL TOLIN whose telephone number is (571)272-8633. The examiner can normally be reached on M-F 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Tolin/
Primary Examiner, Art Unit 1745